



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

14.7

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,311	08/03/2006	Toshio Kazama	060587	6871
23850	7590	07/20/2007		
KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005			EXAMINER GILMAN, ALEXANDER	
			ART UNIT 2833	PAPER NUMBER
			MAIL DATE 07/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,311

Applicant(s)

KAZAMA ET AL.

Examiner

Alexander D. Gilman

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/3/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6-9, 12, 15, 18, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Barabi et al.

With regard to claim 6, 12, 18 Barabi et al (US 6,220,870) disclose a needle-like member that

constitutes a conductive contact which electrically connects a first object (15) to a second object (col. 1, lines 19-21), the needle-like member comprising:

a columnar member (95) having a first end and a second end;

a through hole that connects the first end to the second end; and

a contact member (79) configured to electrically contact with the first object and arranged at the first end.

Art Unit: 2833

With regard to claims 7, 8, Barabi et al disclose that the second object is a circuit board (col. 1, lines 19-21) that includes a circuit for generating and transmitting an electrical signal to be supplied to the first object.

With regard to claim 9, 15, 21, Barabi et al disclose that the through hole has a constant diameter.

Claims 6, 10-14, 16-20, 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Tate et al.

With regard to claim 6, Tate (US 6,861,862) disclose a needle-like member that constitutes a conductive contact which electrically connects a first object (21) to a second object (13), the needle-like member comprising:

- a columnar member(25) having a first end and a second end;

- a through hole that connects the first end to the second end; and

- a contact member (17) configured to electrically contact with the first object and arranged at the first end;

- a second needle-like member (91).

With regard to claim 10, Tate discloses that the through hole tapers (36, 40) from the first end toward the second end.

Art Unit: 2833

With regard to claim 11, Tate discloses that the contact member (17) is located near a periphery of the columnar member in a longitudinal direction to come in contact with a periphery of a connecting electrode of the first object.

With regard to claim 12, Tate discloses conductive contact that electrically connects a first object to a second object, the conductive contact comprising:

- a first needle-like member that includes a columnar member (14) having

- a first end and a second end;

- a through hole (36) that connects the first end to the second end; and

- a contact member (17) configured to electrically contact with the first object and arranged at the first end; and

- a second needle-like member (20) that is arranged to electrically connect to the first needle-like member, and slides in the through hole of the first needle-like member; and

- a spring member (23) that is fixed to the first needle-like member, and applies an elastic force on the second needle-like member present in the through hole.

With regard to claims 13, 14, Tate discloses that the second object (13)

is a circuit that generates and transmits an electrical signal to be supplied to the first object.

With regard to claim 16, Tate discloses that the through hole (36, 40)

tapers from the first end toward the second end.

Art Unit: 2833

With regard to claim 17, Tate discloses that the second needle-like member includes a support member (24, 30) that is slidable in the longitudinal direction while being in contact with an inner surface of the through hole; and a contact member (20) that is integrally formed with the support member, and configured to electrically contact with the second object.

With regard to claim 18, Tate discloses conductive contact unit comprising:

a conductive contact including

a needle-like member that includes a columnar member (14) having a first end and a second end, a through hole that connects the first end to the second end, and a contact member (17) configured to electrically contact with an object; and

a spring member (22) that biases the needle-like member in a direction perpendicular to the object; and

a conductive contact holder (15) that includes a holder hole for accommodating the conductive contact.

With regard to claims 19, 20, Tate discloses a circuit (13) that generates and transmits an electrical signal to be supplied to the first object.

With regard to claim 22, Tate discloses that the through hole (36, 40) tapers from the first end toward the second end.

Art Unit: 2833

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander D. Gilman whose telephone number is 571 272-2004. The examiner can normally be reached on Monday-Friday, 10:30 a.m. - 8:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571 272-2800 ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/16/2007



ALEXANDER GILMAN
PRIMARY EXAMINER